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Google expeditions and fieldwork: friends or foes?

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Google expeditions and fieldwork: Friends or foes?

OU: Ana-Despina Tudor and Shailey Minocha
FSC: Steve Tilling and David Morgan
GA: Becky Kitchen and Alan Kinder
ASE: Marianne Cutler and Richard Needham (also at Vicia Learning Solutions Ltd.)
Funded by Google and The Open University, UK
7 January 2017

The Open University
FSC
The Association for Science Education
Geographical Association
Google Expeditions

Agenda

- What is virtual reality?
- Google Expeditions
- Our research goals
- Demo
- Individual activity
- Group discussion

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What is virtual reality?

A simulated environment on a **computer** or mobile platform (e.g., smartphone, tablet):



Second
Life



Virtual Skiddaw:
3D Geology Field
Trips (Unity 3D)

Mobility

4

What is virtual reality?

A simulated environment on a computer or **mobile platform** (e.g., smartphone, tablet):



5

Google Expeditions



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Google Expeditions

- Photospheres (360° view)
- Three-dimensional representation
- Real places or simulations
- First person exploration

7

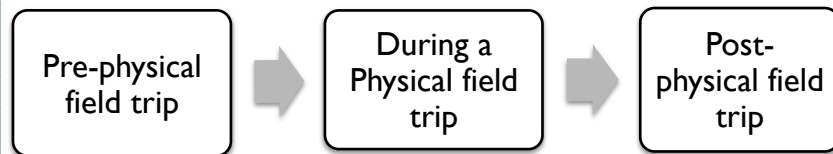
Our research goals

- Whether and how virtual reality-based Google Expeditions (GEs) can be integrated in the Science curriculum (classrooms)
 - Teaching science concepts and phenomena
 - Support inquiry-based learning and students' curiosity
- Whether and how virtual reality can support CPD of teachers
- Recommendations for the user interface design of GEs

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Our research goals

- Whether and how virtual reality-based GEs can support physical field trips



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How you could help us?

- Trying it out today (Demo)
- Thoughts on fit with the curriculum and with physical fieldwork

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Individual activity

Think of one of the difficult concepts in Science:

How could Google Expeditions (or Virtual Reality, in general) help you to teach that concept?

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Group discussion

How could Google Expeditions support the development of fieldwork skills?

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Group discussion

Pre-physical
field trip

How could you use Google Expeditions before a physical field trip?

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Group discussion

During a
physical field
trip

For which scenarios would you use Google Expeditions during a physical field trip?

14

Group discussion

Post-physical
field trip

How could you use Google Expeditions after a physical field trip?

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Group discussion

What are the challenges that you would face in integrating Google Expeditions in your curriculum?

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Details:

Survey:

<https://www.surveymonkey.co.uk/r/role-of-virtual-reality-in-fieldwork>

or <http://bit.ly/2ijMghv>

Project website:

<http://www.shaileyminocha.info/google-expeditions/>

Email addresses:

[\(ana.tudor; shailey.minocha\)@open.ac.uk](mailto:(ana.tudor; shailey.minocha)@open.ac.uk)

Twitter:

@AATudor; @ShaileyMinocha